IN THE CLAIMS:

1-4. (Canceled)

5. (Currently Amended): A reduced sensitivity spin valve sensor ~~apparatus~~, comprising:

at least [[one]] two magnetically fixed [[layer]] layers; and

at least two free layers;

~~wherein the at least one magnetically fixed layer includes at least two magnetically fixed layers, and~~ wherein the at least two free layers are positioned between the at least two fixed layers; and

wherein the at least two magnetically fixed layers have a parallel magnetic orientation.

6. (Currently Amended): The reduced sensitivity spin valve sensor ~~apparatus~~ of claim 5, further comprising at least one non-magnetic spacer positioned between one of the at least [[one]] two fixed [[layer]] layers and one of the at least two free layers.

7. (Currently Amended): The reduced sensitivity spin valve sensor ~~apparatus~~ of claim 5, wherein the at least [[one]] two fixed ~~layer includes at least two fixed layers having~~ layers have a magnetic orientation approximately 90 degrees from a magnetic orientation of the at least two free layers.

8. (Canceled)

9. (Currently Amended): The reduced sensitivity spin valve sensor ~~apparatus~~ of claim 5 wherein the at least two fixed layers and the at least two free layers are spaced from one another by three non-magnetic spacers.

10. (Currently Amended): The reduced sensitivity spin valve sensor ~~apparatus~~ of claim 5, wherein a magnetic flux is distributed across the two free layers to thereby reduce a magnetic flux fed to each free layer.

11-14. (Canccled)

15. (Currently Amended): A method of making a reduced sensitivity spin valve sensor ~~apparatus~~, comprising:

providing at least [[one]] two magnetically fixed [[layer]] layers; and

providing at least two frec layers

wherein providing the at least ~~one fixed layer includes providing at least~~ two fixed laycrs~~, and wherein providing the at least two free layers~~ includes positioning the at least two free layers between the at least two fixed layers; and

wherein the at least two fixed layers have a parallel magnetic orientation.

16. (Currently Amcnded): Thc method of making a reduced sensitivity spin valve sensor ~~apparatus~~ of claim 15, further comprising providing at least one non-magnetic spacer positioned between one of the at least [[one]] two fixed [[layer]] layers and one of the at least two free layers.

17. (Currently Amended): The method of making a reduced sensitivity spin valve sensor ~~apparatus~~ of claim 15, wherein providing the at least [[one]] two fixed [[layer]] layers includes providing at least two fixed layers having a magnetic orientation approximately 90 degrees from a magnetic orientation of the at least two free layers.

18. (Canceled)

19. (Currently Amended): The method of making a reduced sensitivity spin valve sensor ~~apparatus~~ of claim 15, wherein providing the at least two fixed layers and providing the at least two free layers includes spacing the at least two fixed layers and at least two free layers from one another by three non-magnetic spacers.

20. (Currently Amended): The method of making a reduced sensitivity spin valvc sensor ~~apparatus~~ of claim 15, wherein a magnetic flux is distributed across the two free layers to thereby reduce a magnetic flux fed to each free layer.

21. (Currently Amended): A reduced sensitivity spin valve sensor ~~apparatus~~, comprising:

first, second, third, and fourth ferromagnetic material layers being separated respectively from one another by three non-magnetic spacer layers, the first and fourth ferromagnetic material layers being outermost ferromagnetic material layers with respect to the second and third ferromagnetic material layers;

wherein the first and fourth ferromagnetic material layers have parallel fixed magnetization direction;

wherein the second and third ferromagnetic material layers have magnetization directions that can rotate when under applied magnetic fields;

wherein magnetic flux is spread across at least the second and third ferromagnetic material layers to thereby reduce the magnetic flux fed to the second and third ferromagnetic layers.